## "BIG DITCH" NOW **ALMOST COMPLETE**

Removal of Gamboa Dike Means End of Work Is Near.

## WATERS OF OCEANS MEET

First Steps Are Taken Toward Destruction of Big Embankment Which Holds Gatun Lake Out of Culebra Cut.

Colon, Panama, Oct. 1.-The climar of nine years of untiring work on the part of the men who have been build-ing the Panama canal came today when the waters of Gatun lake were permitted to run for the first time into the Culebra cut. This simple operation marked the virtual completion of the great isthmian waterway

The water was permitted to flow into the cut today through four 26-Inch pipes extending through the Gamboa dike, which has held the waters of the lake back from the cut. This was done in order that there may be enough water in the cut to prevent any damage when the dike is finally removed.

The final destruction of the big dike is scheduled for October 10, when charges of dynamite placed in holes already drilled in the dike will be exploded. The explosion of these charges will not completely destroy the dike, but will weaken it and loosen the dirt so that the force of the waters from Gatun lake will carry it away. Steam shovels will remove the remnants of the dike, leaving an open passageway from ocean to ocean.

Canal Really Complete Now.

Although the canal will not be offi-cially declared completed for some time, and the formal opening of the waterway to the commerce of the more than a year distant, the canal engineers look upon the destruction of the Gambos dike as marking the real completion of the canal The big engineering feats have all

spite unforeseen difficulties that have a neers beset them at every hand.

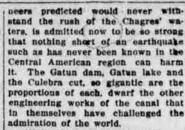
Goethals to Make Final Test The first vessel to pass through the canal probably will be a boat of the Isthmian canal commission. Col. George W. Goethals, chairman of the commission and chief engineer of the canal, and his paincipal assistants. The final voyage through the canal is scheduled for some time during this month. Within another month it is expected the waters in Gatun lake will have risen high enough to bring the waters in the entire canal up to the deep water level required for the passage of the largest ships.

It is said that as long ago as early part of August, assurances were given Washington officially that if the emergency should arise, the entire Atlantic battleship fleet could be put through the canal into Pacific waters within 60 days from that date. work has been hurried with that end in view, it is said, as no emergency has existed, but this assurance is an indication of the belief of the engi- real builder of the canal. neers that their work is now practically finished.

Culebra Cut Caused Trouble. The excavation of the Culebra cut, into which the water has just been turned, has been one of the engineering feats connected with the building of the canal, and has caused the engineers more trouble than any oth-er portion of the big "ditch." To Col. D. D. Gaillard, the engineer of the central division, is given credit for carrying this portion of the work through to a successful termina-

The disastrous slides in the cut were discouraging to the engineers. nullifying in a few hours the work of many weeks, but Colonel Gaillard and his assistants have kept untiringly at ed the treacherous banks of the deep cut. The engineers believe that the danger of slides will be climinated now that the water has been turned into the cut.

A little more than a month ago the giant steam shovels finished their work in the Culebra cut. Since that time the workmen have been busy removing the shovels, the railroad tracks and other machinery used in the excavation work. There is still big engineering feats have all some dirt to be removed from the cut accomplished, the excavation before the channel is finished, but work practically has been completed, this work will be done by suction



World Gives Goethals Credit. To Col. George Goethals, chairman of the Isthmian canal commission chief engineer of the commission and governor of the canal zone, the world will give the credit for the successfu completion of the Panama canal. Colonel Goethals could not have accomplished his task without the assist ance of such men as Col. H. F. Hodges, Lieut. Col. David Du B. Gatl-lard and Lieut. Col. William L. Sibert, army engineers, who have had charge of various phases of the work, but Colonel Goethals is recognized as the

Under Colonel Goethals the greater part of the \$375,000,000 which the canal will have cost when it is completed has been spent. It has been by far the costliest engineering project in the world. Nearly three-fifths of a billion dollars has been spent in dig-ging a 40-mile "ditch." This means that the Panama canal has cost the United States \$10,000,000 a mile.

Over \$16,000,000 of the total amount spent has been used to make the canal zone habitable and sanitary. It has been suggested that this is an enor mous amount of money to spend in cleaning up a place in which few prople will reside permanently, but the engineers say that the sanitation of the canal zone was the chief factor in making the canal a reality. The fallure of the French has been attributed to a large extent to the fact that the workmen could not survive in the fever and pest ridden country.

The building of the great locks which raise a vessel to a height of \$7 feet above sea level at one end of the canal and lower it the same distance at the other end, has been in charge of two of Colonel Goethals' assistants, Colonel Hodges and Lieutenant Colonel Sibert. Colonel Hodges work in installing the immense lock gates that form so important a part of the operating machinery of the canal, and his ability to overcome all obstacles had led Colonel Goethals to call him a genius. The building, peising and operation of the lock gates constitute one of the delicate prob-lems of lock canal construction, and the proper handling of this problem has been Colonel Hodges' contribution to the work of construction of the canal.

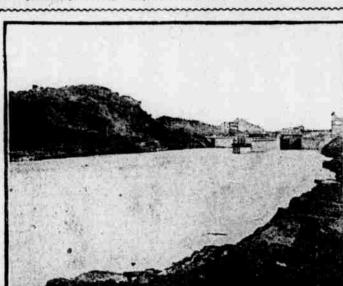
Lieutenant Colonel Sibert has had charge of the building of the great dam and locks at Gatun, in addition to other duties. He saw long, ac-tive service in the Philippines, and he is known in the army as a fight-er as well as an engineer. His fighting qualities have enabled him to carry through the great work of which he has had charge in the canal zone. Realize Dream of Centuries.

Through the work of these men-all of them members of Uncle Sam's fighting body—the United States has been able to attain what has been in truth the dream of centuries. In nine years these men have carried through an undertaking that was first thought of several hundreds of years ago. There is evidence that the idea of an isthmian canal was born as early as the sixteenth century, for history re cords the fact that the Inquisition declared such a project to alter the face of the earth to be implous and further discussion of the matter was forbidden by Philip II. of Spain, whose reign began in 1556. More than a century later a Scotchman named Patter son revived the scheme, established a colony on the shores of the isthmus.

and made a crude survey of the route. The United States government first took definite action looking toward the construction of an isthmian canal in 1834, when the senate voted for the building of a Nicaraguan canal. An expedition was sent to Nicaragus make an investigation, and report ed that the canal could be construct for \$25,000.000, hardly one-twentieth of the amount that the Panama will have cost when completed.

De Lesseps First to Dig. The matter rested until after the Civil war, when negotiations for a canal commission were entered into by the United States government. Before anything had been accomplished the concession for a Panama canal had been given to Lucien Napoleon Ranaparte Wyse, a Frenchman. He organized a company, which sold out later to the financiers associated with Perdinand de Lessens. The company organized with de Lesseps at its head was the first one to actually begin op erations on the isthmus. For elg years de Lesseps struggled manfully against the greatest odds that man ver was called upon to face.

Such was the history of the 1sth mian canal project for some 300 or 400 years, until the day in 1904 when Uncle Sam undertook the task.
In nine years the dream of the cen-



This picture gives a view of the great expanse of water now gradually filling the Panama canal, which is almost ready for the admission of the big ships. To look at the picture one would think that the canal was finished. The embankments that flank the channel, the broad expanse of water and the Miraflores locks in the distance are just as they will be when the opening of the canal takes place. This is the only photograph received up to the present time which shows the canal as it will appear at the opening of the big waterway connecting the Atlantic and Pacific oceans.

and the great locks have been constructed. The work that remains to be done is largely detail, and is but child's play as compared with that which has been done. More dirt is to be removed from the channel, but this will be done with suction dredges floating upon the waters of the canal. There still remain some finishing touches to be placed upon the locks. but this work will take comparatively little time and presents no engineering difficulties such as have been en countered in the past.

The fact that the canal stands prac-

tically complete more than a year be-fore the time originally set as the date for its completion is one of the remarkable features of the work. When Count de Lesseps, the great French engineer, abandoned his ef-forts to build the Panama canal after eight years of labor, he had scarcely a beginning upon the gigantic task. In nine years, the American engineers, starting almost at the same point as de Lesseps, for the latter's work was of little value to the Ameri cans, have virtually completed the undertaking. When the work was started the world scoffed at the idea that it could be completed within the time limit set, but hats are now off to the American army engineers who have more than kept their word, de-

the top, the dike which many engi-Of course, there have been many at- | to read between the lines, behind the tempted robberies, but only once, in the year 1862, were thieves successful in obtaining any of the paper. Very shortly afterward forged notes were in circulation. The thieves did

s floating on the waters of the

canal, and will not interfere with nav-

igation of the waterway by such boats

Immense Artificial Lake Created.

Gatun lake, the waters of which are

now flowing into the Culebra cut. is

the pivotal point about which the en-

tire canal system revolves, and the creation of this lake, together with the

construction of Gatun dam, consti-

tuted another great engineering feat

in the construction of the canal

Gatun lake is an artificial body of

water covering about 164 square miles

of territory and was created by the

and the impounding of the wild wa

ters of Chagres river. Beneath the waters of Gatun lake lies what a few

months ago was the valley of the

Chagres, dotted with native villages and plantations. The channel of the

canal passes through this lake for a

distance of 24 miles with a width vary

ing from 500 to 1,000 feet.

At the northern end of the lake

is the Gatun dam, which is in reality

an artificial ridge more than a mile

and a half long. Figures alone give an adequate idea of the magnitude of

this dam. Nearly half a mile wide at

its base, about 400 feet wide at the water surface, and 100 feet wide at

as may be allowed to pass through.

not enjoy the triumph long, for within a short time they were captured. Reading Between the Lines.

To get the good of the library in them clear to show me the local color the school of life you must bring into of unknown regions and the bright

words, beyond the horizon of printed page. Philip's question to the chamberlain of Ethiopia was crucial: "Understandest thou what thou read-est?" I want books not to pass the time, but to fill it with beautirus world, to give me new friends in the spirit, to purify my ideals and make stars of universal truth.- Henry

## PYTHIAN KNIGHTS PLAN CELEBRATION

THIRTY-SIX LODGES TO TAKE PART IN THE GOLDEN JUBILEE.

Ceremonies to Take Place in Detroit on November 12-Initiation of Candidates at Damon Castle.

Lansing.—Arrangements for a golde ubilee to be hald in Detroit by 36 odges in lower Michigan on November 12, in honor of the founding in the United States of the Knights of Pythias, were made at a meeting of the general committee and the various branch committees in charge of the

The principal feature of the cele bration will be the dedication supreme grand castle of the United States of the new temple of Wayne castle, at Cass avenue and Bagg street. This ceremony will take place at three o'clock in the afternoon of November 12.

Wayne castle, too, will be the gathering place of the visiting delegates who, with members of Detroit castles will parade through the principal streets in the downtown section of the city that night. The initiation of candidates into the order will take place at Damon castle.

Another meeting of the committees to complete details regarding the reception of visitors and places in the parade will be held at Peninsular hall

next Sunday afternoon.

The jubilee here will be part of a general celebration of the founding of the order to be held in every state in the union at various times now and next February, which will mark the fiftieth year of the organization's existence.

Alton May Head State Druggists. The nominating committee of the Michigan State Pharmaceutical association has arranged the following ticket for the annual meeting begin ning in Grand Rapids: President—D.
D. Alton, Fremont; D. G. Look, Lowell; F. E. Peters, Davidson. First Vice-President-E. E. Miller, Traverse City; Charles Abell, South Haven; C. H. Frantz, Bay City. Second Vice-President—C. A. Weaver, Detroit; A. J. Huizinga, Holland; Van I. Witt, Grand Haven, Secretary—Von W. Furniss, Nashville, Treasurer—R. A. Abbott, Muskegen; E. Dekruff, Grand Rapids; E. C. Varnum, Jonesville, Executive Committee—C. H. Jongejan, Grand Rapids; J. D. Gilleo, Pompeil; James Robinson, Lansing. Second Vacancy—Grant Stevens, Detroit; F. Dullam, Flint, and G. H. Knaak, St. Trustee of the Prescott Me-Joseph. porial Fund—J. W. T. Knox, Detroit. The nominating committee consists

of C. M. Surine and Earl Dekruff, this city; A. J. Huicing, Holland; R. A. Abbott, Muskegon, chairman, and J. H. Webster, Detroit.

National Baptist Congress.

The program of the National Baptist congress, which will be held in Grand Rapids November 11-13, was received

It shows the names of some of the most prominent speakers and writers in the United States, and is as fol-Tuesday afternoon-"Bergson's Phil-

osophy and Its Effect Upon Human Thought," writers-Prof. Gerald B. Smith, Chicago; Rev. Clarence M. Gal-lup, Providence, R. I.; speakers—Prof. George M. Forbes Rochester, N. Y.; President E. Y. Mullins, Louisville,

Tuesday night-"The Moral and Religious Effect of the Feminist Move ment," writers-R. A. Ashworth, Milwaukee; Mrs. Allyn K. Foster, Wor cester, Mass.; speakers, Rev. O. P. Brookline, Mass.; Mrs. Andrew McLeish, Chicago. Wednesday afternoon—"The

logical Interpretation of the Bible, writers—Prof. Shirley J. Case, Chi cago; Prof. W. E. Rafferty, Kansas City, Kan.; Prof. C. H. Moehlman, Rochester, N. Y.; speaker—Dean D. J. Evans, Liberty, Mo.

Wednesday night—"What is the Mission of the Church?" writers—Rev. Washington Gladden, Columbus, Rev. Charles D. Williams, Detroit; Prof. Thomas C. Hall, New

Thursday afternoon-"What Is Best Method of Dealing With the Re-ligious Life of Our Institutions of Higher Learning?" writers — Rev. Henry F. Cope, Chicago; Rev. F. W. Padelford, Boston, Mass.; Prof. Fred

Merrifield, Chicago.
Thursday night—"The Need of Unc tion in American Preaching," writers, Prof. Theodore G. Soares, Chicago; Rev. L. A. Crandall, Minneapolis

Will Expel for Hazing at University "Haze, and you leave college," was the ultimatum issued by the student council of the University of Michigan. The student council is a group of men chosen by the student body for its government in so far as self-govsity authorities refuse to countenance hazing, and have said that any stu-dent caught would be expelled from the university. A special committee under the direction of Albert Pietcher of Kalamazoo bas been appointed to

Militiamen Not Protected by Act. Although Secretary Drake of the industrial accident board gave a verindustrial accident board gave a ver-bal ruling several weeks ago to the effect that members of the Michigan National guard are in reality state employes and as such are entitled to the protection afforded by the workingmen's compensation and employ ers' liability law, Attorney General Fellows has rendered an opinion to the effect that the compensation law is not intended to protect members of the militia, but he points to another statute which enables the board WILL DEDICATE NEW TEMPLE of state auditors to compensate na

tional guardsmen in case of injury. The decision resulted from death of Ora Green, the Lansing boy who died as the result of injuries received in the copper country while on duty with Battery A, First Michigan Field artillery. It was thought that Green's widow would receive compensation from the state and that the case would be acted upon by the industrial accident board.

However, inasmuch as the compen sation act makes no mention of protecting the militiamen, Attorney General Fellows says that a law passed several years ago which authorizes the board of state auditors to com pensate the widow out of the general fund of the state treasury. This section of the law provides that the aud itors shall determine what shall con stitute a just and reasonable settle ment.

It is expected that the matter will be taken up at the meeting of the board of auditors. In Wisconsin the industrial accident board held that members of the national guard were covered by the state compensation law, but Attorney General Fellows points out that if it had been the intent of the Michigan legislature to bring the national guard under provisions of the act some provision would have been made to take care of an extraordinary liability which might result from a serious riot.

To Unify Prison System.

At a meeting of the Marquette club the Michigan penological commission was organized. Those in attendance were Governor Ferris, O. H. L. Wer nicke of the Jackson prison board, Al-bert Stickley and Jos. Robson of the Ionia board, W. H. Johnson, Ira Carley and E. C. Anthony of the Mar-quette board and Warden Russell of Marquette prison.

The work of the commission will be done largely by six committees designated as follows: Legislature designated as follows: and investigation, Levi L. Barbour, Detroit; rules and classification, Otis Fuller, Ionia; James Russell, quette; Nathan F. Simpson, Jackson products and sales, Edward Frensdorf Hudson; Ira Carley, Ingalls; Joseph H. Robson, Ovid; records and identi fication, Dehull N. Travis of Flint; Henry Kinney, Bay City; Otis Fuller. Ionia; research and statistics, Alfred Locke, Ionia; Harry Coleman, Pontiac; W. H. Johnson, Ishpeming; employment and compensation, James Russell, Marquette; Otis Fuller, Ionia: Nathan F. Simpson, Jackson.

The committee named Jackson as the next meeting place.

Ferris May Call 1914 Session. Governor Ferris reiterated bis declaration that there would be no special session of the legislature called to consider matters connected with the copper country strike.

"But does this mean there will be no 1914 session?" the governor was asked.

He replied: "I would not say that. was greatly interested in procuring passage of the blue sky law in the regular session this year. This law is now being attacked on the ground that it is unconstitutional. If it were thrown out, I should feel like taking steps to have it made constitutional. Other conditions may arise would make a 1914 session advisable. hould say that it is among possibilities.

To Evict Striking Miners.

Eviction of the striking copper miners from the Copper Range Consolidated Mining company's houses was made possible by legal proceedings brought before the Houghton county circuit court commissioner, the decided that a striker had violated his company contract by refusing to work and is therefore liable to eviction from his home within thirty days.

It was reported in Calumet that many of the Keweenaw county strikers voted to go back to work. large number are said to have applied for their old positions at the Mohawk mine and the company is preparing to reopen one of its shafts. Keweenaw county has been the hotbed of unionism and the report is not credited by the federation leaders others believe the injunction against picketing and parading has broken the back of the strike in this locality.

The last of the First Infantry, 75 men and Captain Roehl, Lieutenants Bruce and Beaton of Detroit will leave for home. Major Bersey, Cap-tains Dumas and Baskerville, the other Detroit officers doing strike service, will remain on the job for a few

Michigan Suffragists Gather.

Officers of the Michigan Equal Suffrage association met in Jackson for the purpose of arranging for the an-

nual state convention which is to be held in Jackson in November. Those in attendance were: Mrs. Chara B. Arthur, Detroit; Caroline Bartlett, Crane. Kalamasco: Mrs. Bartlett Crane, Kalamazoo; Mrs. James H. Blair, Hillsdale; Mrs. Huntley Russell, Grand Rapids; Mrs. William Blake, Grand Rapids; Mrs. C. G. Parnall, Jackson, and Mrs. Jennie C.

## FEMALE MAKES THE TROUBLE

Certainly in the Case of the Mosquits
They Are "More Deadly Than
the Male."

The attention of many of our citi tens who hitherto have taken little in terest in entomological investigation has been attracted to what they be lieve is a new variety of mosquite, a mosquite which in the course of evo lution has lost its bark, but not its bite: that comes upon one unawares, without a musical accompaniment. Whatever may be said against the init that it takes its nourishment with music, declining to give that addition al smart to one's misery. This active, but diminutive specimen of the go-nus Culex, now at the close of summer, is beginning a work that will continue until the first sharp frost. As a matter of fact these mosquitoes that have had no difficulty in pushing their way through the smallest mosh ed wire screens are all females, and for that reason we hear no song. The males are larger, perhaps cannot make their way through the screens, and remain outside, where they sing solos or join in numbers and give hallely jah choruses, and encourage the suffragette sisters at their work inside The sisters have an insatiable thirst for blood, while the mouth of the male mosquito is not equipped for biting and he does not come into our bouses While the sisters are inside drinking blood the more temperate fathers of the family are outside sipping rain-

Eye Alone Detects Icebergs. There at present is no absolute method of detecting icebergs, except Captain C. E. Johnson and A. S. Gam-ble of the cutters Seneca and Miami, which patroled the route of the trans atlantic liners from April to May.

Captain Johnson refuted the preva lent theory that a sudden drop in tem perature meant the proximity of ice bergs. Little or no change in temperature was noticeable, he said. Nor can icebergs, as generally supposed, be detected with any certainty by an echo from a ship's whistle or bells. as, according to Captain Johnsto perpendicular berg may give an echo from some directions, but a shanting face reflects the sound. About ninety per cent, of the Seneca's efforts get echoes were futile.

auk), the officer declares, indicat the presence of icebergs, but be ad vises mariners to pay no attention to other birds.

Real Excitement. "Yes," said the meek-looking man "I've no doubt you've had some great hunting experiences in your tra abroad.

'I have, indeed." "Ruffalo hunting-"

"And bear hunting-"

"Of course." "Well, you just come around and let my wife take you house hunting and bargain hunting with ber. These you'll begin to know what real excite ment is.'

Not Mercenary. "I have a friend who just married

for money." "Why, how disgraceful!" "No, not exactly. You see, be's minister."-Cornell Widow.

"My hubby goes out every evening for a constitutional." "Mine don't; he keeps it to the

It is a waste of time to whitew character that could not be maved by

Germany gets by far the largest portion of its tin ore from Polivia.

DIDN'T KNOW That Coffee Was Causing Her Trouble

So common is the use of coffee as a beverage, many do not know that it is the cause of many obscure ails which The cause of many obscure any which are often attributed to other things.

The casiest way to find out for one-seif is to quit the coffee for a while, at least, and note results. A Virginta lady found out in this way, and also learned of a new beverage that is wholesome as well as pleasant to drink. She writes:

wholesome as well as pleasant to drink. She writes:
"I am 40 years old and all my life, up to a year and a half age, I had been a coffee drinker.
"Dyspepsia, severe headaches and heart weakness made me feel sometimes as though I was about to die. After drinking a cup or two of hot coffee, my heart would go like a chock without a pendulum. At other times it would almost stop and I was so nerrous I did not like to be alone.
"If I took a walk for exercise, as

ous I did not like to be alone.

"If I took a walk for exercise, as soon as I was out of sight of the house I'd feel as if I was sinking, and this would frighten me terribly. My make would utterly refuse to support me, and the pity of it all was, I did not know that coffee was causing the trouble.

know that coree was causing the ble.

"Reading in the papers that m persons were relieved of such alim by leaving off coffee and drinking I um, I got my husband to bring he a package. We made it second in directions and I liked the first cap. rich, snappy flavor was delicious.

"I have been using Pestum a eighteen months and to my great digestion is good, my nerves and he are all right, in fact, I am a well we once more, thanks to Pestum."

Name given by Postum Ca, in Creek, Mich. Write for copy of little book, "The Road to Welly! Postum comes in two forms: Regular Postum—must be boiled.

instant Postum is a soluble
A tenspoonful dissolves quick
cup of hot water and, with ere
sugar, makes a delicious beve

